

RECEIVED  
CENTRAL FAX CENTER

CUSTOMER NO. 24498  
 Serial No.: 10/084,773  
 Date of Final Office Action: 10/15/08  
 Notice of Appeal dated: 3/16/2009  
 Date of Appeal Brief: 03/16/2009

MAR 16 2009

PATENT  
PU020045IN THE UNITED STATES PATENT AND TRADEMARK OFFICEBefore the Board of Patent Appeals and Interferences

**Inventor(s)** : PAUL GOTTHARD KNUTSON ET AL.  
**Serial No.** : 10/084,773  
**Filed** : February 26, 2002  
**Title** : SATELLITE TELEVISION SYSTEM GROUND STATION  
           HAVING WIDEBAND MULTI-CHANNEL LNB  
           CONVERTER/TRANSMITTER ARCHITECTURE WITH  
           CONTROLLED UPLINK TRANSMISSION  
**Examiner** : Justin E. Shepard  
**Art Unit** : 2424

---

APPEAL BRIEF

**Mail Stop: AF**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

**May It Please The Honorable Board:**

This is Appellants' Brief on Appeal from the rejection of claims 1 – 15. Please charge the \$540.00 fee for filing this Brief to Deposit Account No. 07-0832. Appellants waive an Oral Hearing for this appeal.

Please charge any additional fee or credit overpayment to the above-indicated Deposit Account. Enclosed is a single copy of the Brief.

\*\*\*\*\*

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted, Via Facsimile, to the United States Patent and Trademark Office, Mail Stop: AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

March 16, 2009  
 Date

Jill S. Garretson  
 Jill S. Garretson

03/17/2009 VBUI11 08000029 078832 10084773

03 FC:1402 540.00 DA

- 1 -

RECEIVED  
CENTRAL FAX CENTER

CUSTOMER NO. 24498  
 Serial No.: 10/084,773  
 Date of Final Office Action: 10/15/08  
 Notice of Appeal dated: 3/16/2009  
 Date of Appeal Brief: 03/16/2009

MAR 16 2009

PATENT  
PU020045I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/084,773 is the Assignee of record:

THOMSON LICENSING S.A.  
 46 Quai A. Le Gallo  
 F-92100 Boulogne-Billancourt  
 FRANCE

II. RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/084,773 known to the undersigned attorney.

III. STATUS OF THE CLAIMS

Claims 1-15 are rejected and the rejection of claims 1-15 is appealed.

IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This summary sets forth exemplary reference characters and pages and line numbers in the specification where an embodiment of each separately argued claim is illustrated or described. The identification of reference characters and pages and line numbers does not constitute a representation that any claim element is limited to the embodiment illustrated at the reference character or described in the referenced portion of the specification.

Independent claim 1 claims an outdoor unit for a satellite television ground system comprising: downlink circuitry operative to receive a satellite television signal from a satellite, frequency lock to the satellite television signal, process the satellite television signal, and provide the processed satellite television signal to an indoor unit of the satellite television ground system; and uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal, and transmit the processed uplink signal to the satellites only when said downlink circuitry is simultaneously receiving said satellite

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

television signal from said satellite and is frequency locked to said satellite television signal from said satellite. (page 7, lines 17-29, page 8, lines 18-25, and page 24, lines 6-7)

Dependent claim 2 includes all of the features of claim 1, along with the additional feature that the uplink circuitry is further operative to receive an uplink control signal from the indoor unit indicating said downlink circuitry being frequency locked to the satellite television signals. (page 11, 6-9, page 24, lines 3-7)

Dependent claim 3 includes all of the features of claim 2, along with the additional feature that the uplink control signal comprises an uplink data signal and an uplink oscillator signal. (page 24, lines 3-9)

Dependent claim 4 includes all of the features of claim 3, along with the additional feature that the uplink oscillator signal is derived from the satellite television signal. (page 24, lines 3-9)

Dependent claim 5 includes all of the features of claim 4, along with the additional feature that the uplink oscillator signal is derived from a frequency conversion error data from the satellite television signal. (page 23, lines 11-14)

Independent claim 6 claims an outdoor unit for a satellite television ground system comprising: means for receiving a satellite television signal from a satellite; means for processing the satellite television signal; means for providing the processed satellite television signal to an indoor unit of the satellite television ground system; means for receiving an uplink signal from the indoor unit; means for processing the received uplink signal; and means for providing the processed uplink signal to said satellite only when said means for receiving is receiving the satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite. (page 7, lines 17-29, page 8, lines 18-25, and page 24, lines 6-7)

Dependent claim 7 includes all of the features of claim 6, along with additional means for receiving an uplink control signal indicating a frequency locked condition to signals from the satellite from the indoor unit. (page 11, 6-9, page 24, lines 3-7)

Dependent claim 8 includes all of the features of claim 7, along with the additional feature that the uplink control signal comprises an uplink data signal and an uplink oscillator signal. (page 24, lines 3-9)

**CUSTOMER NO. 24498**  
Serial No.: 10/084,773  
**Date of Final Office Action: 10/15/08**  
**Notice of Appeal dated: 3/16/2009**  
**Date of Appeal Brief: 03/16/2009**

**PATENT**  
**PU020045**

Dependent claim 9 includes all of the features of claim 8, along with the additional feature that the uplink oscillator signal is derived from the satellite television signal. (page 24, lines 3-9)

Dependent claim 10 includes all of the features of claim 9, along with the additional feature that the uplink oscillator signal is derived from a frequency conversion error data from the satellite television signal. (page 24, lines 3-9)

Independent claim 11 claims, in an outdoor unit of a satellite television ground system, a method of providing an uplink communication with a television broadcasting satellite comprising the steps of: receiving a satellite television signals from a satellite; processing the satellite television signal; providing the processed satellite television signal to an indoor unit of the satellite television ground system; receiving an uplink signal from the indoor unit; processing the received uplink signal; and providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite. (page 7, lines 17-29, page 8, lines 18-25, and page 24, lines 6-7)

Dependent claim 12 has been canceled.

Dependent claim 13 includes all of the features of claim 11, along with the additional feature that the uplink control signal comprises an uplink data signal and an uplink oscillator signal. (page 24, lines 3-9)

Dependent claim 14 includes all of the features of claim 13, along with the additional feature that the uplink oscillator signal is derived from the satellite television signal. (page 24, lines 3-9)

Dependent claim 15 includes all of the features of claim 14, along with the additional feature that the uplink oscillator signal is derived from frequency conversion error data from the satellite television signal. (page 24, lines 3-9)

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner has rejected claims 1-4, 6-9, and 11-14 as being unpatentable over Saunders, in view of Ortega, in view of Tanabe under 35 USC 103(a).

The Examiner has rejected claims 5, 10 and 15 as being unpatentable over Saunders, in view of Ortega, in view of Okamura in view of Tanabe, and further in view of Kwentus under 35 USC 103(a).

#### VII. ARGUMENT

##### Rejection of Claims 1-4, 6-9, and 11-14 Under 35 USC 103(a)

Over Saunders (US6,091,703) in view of Ortega (US2002/0087991) in view of Tanabe (US 5,918,156).

##### CLAIMS 1-4

The invention as recited in claim 1 is not rendered obvious by the combination of Saunders, Ortega, and Tanabe proposed by the Examiner, as the proposed combination would not result in all of the limitations of claim 1.

In the present case, the Examiner has failed to establish a *prima facie* case of obviousness, as the cited references, even when combined, fail to teach or suggest all the limitations of claim 1.

The invention of claim 1 is an outdoor unit for a satellite television ground system comprising: downlink circuitry operative to receive a satellite television signal from a satellite, frequency lock to the satellite television signal, process the satellite television signal, and provide the processed satellite television signal to an indoor unit of the satellite television ground system; and uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal, and transmit the processed uplink signal to the satellites only when said downlink circuitry is simultaneously receiving said satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite.

The Examiner proposes a combination of Saunders with the satellite television signals of Ortega and the simultaneous transmission and reception of Tanabe. (Office Action, pages 2-3) However, none of Saunders, Ortega, or Okamura disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

signal as taught by the present invention as recited in claim 1. As these limitations are nowhere found in the cited references, the rejection is improper.

The present invention, as recited by claim 1, teaches a system which may simultaneously receive and transmit signals to and from a satellite. The invention conditions the transmission of a satellite signal with the simultaneous reception of a signal from the same satellite. The invention confirms the simultaneous reception of a signal from the satellite with a frequency lock condition on the receiving circuitry. The intent of this invention is to confirm that a satellite antenna is actually tracking a satellite before transmitting a signal, as described in the specification at page 4, lines 21-25.

In contrast, Saunders describes teaches a system wherein "before transmitting, the user terminal monitors a downlink beam broadcast by the satellite to acquire initial timing information." (Col. 2, lines 52-57) This initial timing information is then used to generate a common symbol transmit rate for the uplink data in the uplink channel. (Col. 6, lines 6-9) Only after the common symbol transmit rate is established, the system of Saunders is ready to transmit the uplink channels to the satellite. Saunders does not teach or suggest that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal as taught by the present invention as recited in claim 1.

Examiner points to Saunders column 4, lines 25-31 as disclosing transmission of "the processed uplink signal to the satellites only when said downlink circuitry is receiving said satellite signal from said satellite and is frequency locked to said satellite signal from said satellite." However, in that passage, Saunders discloses only the recovery of a symbol clock in the downlink beam and synchronization of internal symbol clocks to the symbol clock reference provided for that uplink beam in the downlink beam. Saunders disclosure of synchronization of clocks is not a disclosure of conditional uplink based upon simultaneous reception and frequency locking of a downstream signal as taught by the present invention as recited in claim 1.

Furthermore, Saunders addresses the problem of simultaneous uplink by a plurality of user stations to a single satellite using CDMA techniques. In contrast, the present invention describes selective activation of the uplink during periods where locking of a downstream signal has been achieved from one of a possible plurality of LEO or MEO satellites, as described in the specification on page 2, lines 1-10.

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

Ortega also fails to teach this limitation. In contrast, Ortega teaches a "system and method of common synchronisation for bursts transmitted over an uplink connection in an integrated multispot satellite communication system (S) in a multimedia broadcasting network for setting up bi-directional communication with a satellite with return channel. The common burst synchronisation (4) is produced in such a way that the transmission rate in the downlink direction (P2; U2; C2) from the satellite is a whole multiple of the network clock reference." (Ortega Abstract) Examiner relies on Ortega for disclosure of a system wherein the satellite signals are satellite television signals. (Office Action page 3, paragraph 3) Ortega does not teach or suggest that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal as taught by the present invention as recited in claim 1.

Tanabe also fails to teach this limitation. In contrast, Tanabe teaches a satellite communications system, described with respect to Fig. 1, wherein "information signals 103, indicated by solid lines, are transmitted to receiving stations 102 from a transmitting station 101 via a communication satellite 105, and then received by each of the receiving stations 102. After receipt of the information signal, answer signals 104, indicated by dash lines, such as a signal confirming reception of the information signal at each receiving station or a signal requesting retransmission of the information signal, are returned to the transmitting station 101 from the receiving stations 102 via the communication satellite 105." (Tanabe Col. 2, line 63 – Col. 3, line 7) Examiner relies on Tanabe for disclosure of a system which simultaneously transmits and receives data. (Office Action page 4, line 20) Tanabe does not discuss suggest simultaneous transmission and reception, let alone that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal as taught by the present invention as recited in claim 1.

For at least the foregoing reasons, claim 1 is allowable over the prior art of record. Claims 2-5 depend from claim 1, and it is submitted that they are allowable for at least the reasons that claim 1 is allowable.

In addition to the reasons discussed above in connection with claim 1, claim 2-4 are not rendered obvious by the combination of Saunders, Ortega, and Tanabe. Claim 2 recites the additional limitation of an uplink control signal from the indoor unit indicating said downlink circuitry being frequency locked to the satellite television signals. Examiner points to Saunders column 4, lines 61-62 as disclosing uplink circuitry operative to receive and uplink control signal. The cited passage, however, discloses only the monitoring of the

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

downlink beam for timing control information. It does not disclose a control signal indicative of the downlink circuitry being locked.

Claim 3 recites the additional limitation where the uplink control signal comprises an uplink data signal and an uplink oscillator signal. Examiner points to Saunders column 5, lines 37-38 as disclosing an uplink data signal and an uplink oscillator signal. The cited passage, however, discloses a time flywheel establishing a synchronization word time reference for a terminal. It does not disclose an uplink control signal comprising an uplink data signal and an uplink oscillator signal.

Claim 4 recites the additional limitation where the uplink oscillator signal is derived from the satellite television signal. Examiner points to Saunders column 5, lines 5-7 as disclosing an outdoor unit wherein the uplink oscillator signal is derived from one of the satellite television signals. The cited passage, however, discloses only that the timing control information in the downlink beam includes a synchronization word and an inherent symbol clock reference. The passage does not disclose the uplink oscillator signal being derived from the satellite television signal.

#### CLAIMS 6-9

Claim 6 is an independent apparatus claim describing an outdoor unit for a satellite television ground system comprising: means for receiving a satellite television signal from a satellite; means for processing the satellite television signal; means for providing the processed satellite television signal to an indoor unit of the satellite television ground system; means for receiving an uplink signal from the indoor unit; means for processing the received uplink signal; and means for providing the processed uplink signal to said satellite only when said means for receiving is receiving the satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite. (page 7, lines 17-29, page 8, lines 18-25, and page 24, lines 6-7)

The Examiner has not, noted any specific portion of Saunders, Ortega, and Okamura that teaches the limitations of claim 6. For reasons similar to those noted above with respect to claim 1, the limitation of means for providing the processed uplink signal to said satellite only when said means for receiving is receiving the satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite is not taught in any of Saunders, Ortega, and Tanabe. Consequently, the proposed

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

combination does not teach all of the limitations of the method of claim 6 and the rejection is improper.

With regard to claim 6, Examiner only stated that “[c]laims 6 and 11 are rejected on the same ground as claim 1.” (Office Action page 5, paragraph 3) Claim 6 contains substantially the same limitations as claim 1 expressed in “means” form. As such, the arguments presented above with regard to claim 1 apply here. None of Saunders, Ortega, or Tanabe disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal, nor means for providing the processed uplink signal to said satellite only when said means for receiving is receiving the satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite as taught by the present invention as recited in claim 6. Saunders describes synchronization with the downlink signal, but not that providing the uplink is conditional on simultaneous reception and frequency lock of the downlink signal.

For at least the foregoing reasons, claim 6 is allowable over the prior art of record. Claims 7-10 depend from claim 6, and it is submitted that they are allowable for at least the reasons that claim 6 is allowable.

Furthermore, Examiner rejected claims 7-9 on the same grounds as claim 2-4. As such, the additional arguments provided above with regard to Examiner’s rejection of claims 2-4 also apply to claim 7-9.

#### CLAIM 11-14

Claim 11 is an independent method claim describing a method of providing an uplink communication with a television broadcasting satellite comprising the steps of: receiving a satellite television signals from a satellite; processing the satellite television signal; providing the processed satellite television signal to an indoor unit of the satellite television ground system; receiving an uplink signal from the indoor unit; processing the received uplink signal; and providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite.

With regard to claim 11, Examiner only stated that “[c]laims 6 and 11 are rejected on the same ground as claim 1.” (Office Action page 4, paragraph 3) Claim 11 contains substantially the same limitations as claim 1 expressed in method form. As such, the

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

arguments presented above with regard to claim 1 apply here. None of Saunders, Ortega, or Tanabe disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal, nor providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite as taught by the present invention as recited in claim 11. Saunders describes synchronization with the downlink signal, but not that providing the uplink is conditional on simultaneous reception and frequency lock of the downlink signal.

For at least the foregoing reasons, claim 11 is allowable over the prior art of record. Claims 13-15 depend from claim 11, and it is submitted that they are allowable for at least the reasons that claim 11 is allowable.

Furthermore, Examiner rejected claims 13-14 on the same grounds as claim 3-4. As such, the additional arguments provided above with regard to Examiner's rejection of claims 3-4 also apply to claim 13-14.

Rejection of Claims 5, 10, and 15 under 35 USC 103(a) over  
Saunders (US6,091,703) in view of Ortega (US2002/0087991) in view of Tanabe  
(US 5,918,156) and further in view of Kwentus (US2002/0122511).

#### CLAIM 5

The invention as recited in claim 5 is not rendered obvious by the combination of Saunders, Ortega, Tanabe, and Kwentus proposed by the Examiner, as the proposed combination would not result in all of the limitations of claim 5.

Claim 5 describes an outdoor unit for a satellite television ground system comprising: downlink circuitry operative to receive a satellite television signal from a satellite, frequency lock to the satellite television signal, process the satellite television signal, and provide the processed satellite television signal to an indoor unit of the satellite television ground system; and uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal, and transmit the processed uplink signal to the satellites only when said downlink circuitry is simultaneously receiving said satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite wherein the uplink circuitry is further operative to receive an uplink

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

control signal from the indoor unit indicating said downlink circuitry being frequency locked to the satellite television signals, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal, wherein the uplink oscillator signal is derived from the satellite television signal, and wherein the uplink oscillator signal is derived from a frequency conversion error data from the satellite television signal.

The Examiner proposes a combination of Saunders with the satellite television signals of Ortega and the simultaneous transmission, the reception of Tanabe and the outdoor unit of Kwentus wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals. (Office Action, pages 5) However, none of Saunders, Ortega, Tanabe or Kwentus disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal as taught by the present invention as recited in claim 5. As these limitations are nowhere found in the cited references, the rejection is improper.

Kwentus describes “[s]ystems and techniques for receiving a satellite signal wherein the signal is demodulated and iterative decoded. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher or other reader to quickly ascertain the subject matter of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope or the meaning of the claims.” (Kwentus Abstract)

Examiner points to Kwentus paragraph 46, lines 2-3 and 6-9 as disclosing an outdoor unit wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals. The specified passage states “[0046] FIG. 5 a flowchart demonstrating an exemplary methodology for computing the frequency offset and synchronizing the symbol clock. In step 502, the processor monitors the output of the differential correlator for a peak correlation value. Once a peak correlation value is detected, the frequency offset is computed in step 504. The frequency offset can be computed by determining the frequency error vector represented by the I and Q components of the peak correlation value. The computed frequency offset can then be loaded into the carrier frequency recovery loop in step 506.” Examiner does not assert that Kwentus discloses that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal.

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

For at least the foregoing reasons, claim 5 is allowable over the prior art of record. Further, claim 5 depends from claim 1, and it is submitted that it is allowable for at least the reasons that claim 1 is allowable.

#### CLAIM 10

With regard to claim 10, Examiner only stated that “[c]laims 10 and 15 are rejected on the same ground as claim 6.” (Office Action page 5, paragraph 8) Claim 10 contains substantially the same limitations as claim 5 expressed in “means” form. As such, the arguments presented above with regard to claim 5 apply here. None of Saunders, Ortega, Tanabe, or Kwantus disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal, nor providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite as taught by the present invention as recited in claim 10.

For at least the foregoing reasons, claim 10 is allowable over the prior art of record. Further, claim 10 depends from claim 6, and it is submitted that it is allowable for at least the reasons that claim 6 is allowable.

#### CLAIM 15

With regard to claim 10, Examiner only stated that “[c]laims 10 and 15 are rejected on the same ground as claim 5.” (Office Action page 6) Claim 15 contains substantially the same limitations as claim 5 expressed in method form. As such, the arguments presented above with regard to claim 5 apply here. None of Saunders, Ortega, Tanabe, or Kwantus disclose that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal, nor providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite as taught by the present invention as recited in claim 15.

For at least the foregoing reasons, claim 15 is allowable over the prior art of record. Further, claim 15 depends from claim 11, and it is submitted that it is allowable for at least the reasons that claim 11 is allowable.

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

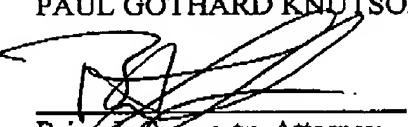
### VIII CONCLUSION

None of the cited references teaches all of the limitations of the independent claims. The cited references, either alone or in combination, do not teach the exemplary limitations of transmitting the processed uplink signal to the satellites only when said downlink circuitry is simultaneously receiving satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite. Accordingly it is respectfully submitted that the rejection of Claims 1- 15 should be reversed.

Respectfully submitted,

PAUL GOTTHARD KNUTSON ET AL.

By:

  
\_\_\_\_\_  
Brian J. Cromarty, Attorney  
Registration No.: 64018  
(609) 734-6804

BJC:pdf

Patent Operations  
Thomson Licensing LLC  
P.O. Box 5312  
Princeton, NJ 08543-5312

March 16, 2009

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

APPENDIX I - APPEALED CLAIMS

1. An outdoor unit for a satellite television ground system comprising:  
downlink circuitry operative to receive a satellite television signal from a satellite, frequency lock to the satellite television signal, process the satellite television signal, and provide the processed satellite television signal to an indoor unit of the satellite television ground system; and  
uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal, and transmit the processed uplink signal to the satellite only when said downlink circuitry is simultaneously receiving said satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite.
2. The outdoor unit of claim 1, wherein the uplink circuitry is further operative to receive an uplink control signal from the indoor unit indicating said downlink circuitry being frequency locked to the satellite television signal.
3. The outdoor unit of claim 2, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal.
4. The outdoor unit of claim 3, wherein the uplink oscillator signal is derived from the satellite television signal.
5. The outdoor unit of claim 4, wherein the uplink oscillator signal is derived from a frequency conversion error data from the satellite television signal.
6. An outdoor unit for a satellite television ground system comprising:  
means for receiving a satellite television signal from a satellite;  
means for processing the satellite television signal;  
means for providing the processed satellite television signal to an indoor unit of the satellite television ground system;  
means for receiving an uplink signal from the indoor unit;  
means for processing the received uplink signal; and

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

means for providing the processed uplink signal to said satellite only when said means for receiving is receiving the satellite television signal from said satellite and is frequency locked to said satellite television signal from said satellite.

7. The outdoor unit of claim 6, further comprising:

means for receiving an uplink control signal indicating a frequency locked condition to signals from the satellite from the indoor unit.

8. The outdoor unit of claim 7, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal.

9. The outdoor unit of claim 8, wherein the uplink oscillator signal is derived from the satellite television signal.

10. The outdoor unit of claim 9, wherein the uplink oscillator signal is derived from a frequency conversion error data from the satellite television signal.

11. In an outdoor unit of a satellite television ground system, a method of providing an uplink communication with a television broadcasting satellite comprising the steps of:

receiving a satellite television signals from a satellite;

processing the satellite television signal;

providing the processed satellite television signal to an indoor unit of the satellite television ground system;

receiving an uplink signal from the indoor unit;

processing the received uplink signal; and

providing the processed uplink signal to the satellite while simultaneously receiving the satellite television signal from said satellite and receiving an uplink control signal indicating a frequency locked condition to said satellite television signal from said satellite.

12. (canceled).

**CUSTOMER NO. 24498**  
**Serial No.: 10/084,773**  
**Date of Final Office Action: 10/15/08**  
**Notice of Appeal dated: 3/16/2009**  
**Date of Appeal Brief: 03/16/2009**

**PATENT**  
**PU020045**

13. The method of claim 12, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal.

14. The method of claim 13, wherein the uplink oscillator signal is derived from the satellite television signal.

15. The method of claim 14, wherein the uplink oscillator signal is derived from frequency conversion error data from the satellite television signal.

16. (canceled).

17. (canceled).

CUSTOMER NO. 24498  
Serial No.: 10/084,773  
Date of Final Office Action: 10/15/08  
Notice of Appeal dated: 3/16/2009  
Date of Appeal Brief: 03/16/2009

PATENT  
PU020045

APPENDIX II - EVIDENCE

This appendix should contain copies of any evidence submitted pursuant to §§ 1.130, 1.131, or 1.132 (affidavits/declarations/etc.) or of any other evidence entered by the examiner and relied upon by Appellants in the appeal, along with a statement setting forth where in the record that evidence was entered in the record by the examiner. Reference to unentered evidence is not permitted in the brief. This appendix may also include copies of the evidence relied upon by the Examiner as to grounds of rejection to be reviewed on appeal.

**CUSTOMER NO. 24498**  
**Serial No.: 10/084,773**  
**Date of Final Office Action: 10/15/08**  
**Notice of Appeal dated: 3/16/2009**  
**Date of Appeal Brief: 03/16/2009**

**PATENT**  
**PU020045**

**APPENDIX III - RELATED PROCEEDINGS**

None.